

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/073,221	SAKAI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Cornelius H. Jackson	2828	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed 12 January 2004.
2. ☒ The allowed claim(s) is/are 1-23 and 26.
3. ☒ The drawings filed on 13 February 2002 and 12 January 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

## **DETAILED ACTION**

### ***Acknowledgment***

1. Acknowledgment is made that applicant's Amendment, filed on 12 January 2004, has been entered. Upon entrance of the Amendment, claims 1-6, 8-9, 12-18, 20, 24 and 25 were amended and claims 26-28 were added. Claims 1-28 are pending in the current application, with claims 24, 25, 27 and 28 are withdrawn from further consideration.

### ***Election/Restrictions***

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
- I. Claims 1-23 and 26, drawn to a semiconductor laser device, classified in class 372, subclass 06.
  - II. Claims 24, 25, 27 and 28, drawn to an amplifier, classified in class 359, subclass 341.3.

The inventions are distinct, each from the other because of the following reasons:

3. Inventions I and II are related as subcombination and combination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP §

Art Unit: 2828

806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination does not require neither the optical fiber grating having a wavelength characteristic which maintains a constant emission wavelength of the laser diode nor two or more quantum well layers being formed close enough to provide quantum coupling. The subcombination has separate utility such as a signal generator, a pump source or and optical repeater.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Ellen Marcie Emas on 16 April 2004 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-23 and 26. Affirmation of this election must be made by applicant in replying to this Office action. Claims 24, 25, 27 and 28 were withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

7. This application is in condition for allowance except for the presence of claims 24, 25, 27 and 28 to an invention non-elected without traverse. Accordingly, claims 24, 25, 27 and 28 have been cancelled.

***Allowable Subject Matter***

1. Claims 1-23 and 26 are allowed.
2. The following is a statement of reasons for the indication of allowable subject matter: Regarding claims 1-12, Prior Art fail to teach and/or suggest a semiconductor laser device comprising an optical fiber, optical fiber grating, a laser diode having a single quantum well and a coupling optical system, wherein the optical fiber grating has a wavelength characteristic which maintains a constant emission wavelength of the laser diode.

Regarding claims 13-23 and 26, Prior Art fail to teach and/or suggest a semiconductor laser device comprising an optical fiber, optical fiber grating, a laser diode having a multiple quantum wells and a coupling optical system, wherein the quantum well layers are formed close enough to provide quantum coupling.

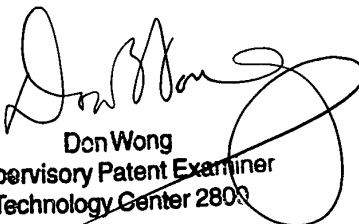
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cornelius H. Jackson whose telephone number is (571)272-1942. The examiner can normally be reached on 8:00 - 5:00, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571)272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CHJ  
chj

  
Don Wong  
Supervisory Patent Examiner  
Technology Center 2800